Faculty of Science

NGEA01, Physical Geography: Introduction to the Global Environment, 15 credits

Naturgeografi: Introduktion till jordens miljö, 15 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-03-01 (N2007266) and was last revised on 2014-03-25. The revised syllabus comes into effect 2014-03-25 and is valid from the autumn semester 2014.

General information

Language of instruction: Swedish and English

Main field of study	*Specialisation*
Physical Geography	G1N, First cycle, has only upper-secondary level entry requirements

Learning outcomes

The course should give basic knowledge about the planet the soil and its bio-geo-sphere dynamic systems and processes and their role in different applications in research and society.
The aim of the course is that students upon its completion should have acquired the following knowledge and skills:

Knowledge and understanding

- Have basic knowledge about, the materials composing and the structure of the atmosphere, the lithosphere, the hydrosphere and the biosphere.
- Be able to profit and apply relevant terminology both in Swedish and in English.
- Have basic knowledge about the processes in the atmosphere, the lithosphere, the hydrosphere and the biosphere and their connection to current environmental problems.
- Have an initial knowledge of the basic subject related computer science and field and laboratory methods and techniques.

- Have a basic understanding of the current research developments of the subject.

Skills and abilities

The student is expected to:

- be able to describe and explain materials and structures of the atmosphere, the lithosphere, the hydrosphere and the biosphere.
- apply relevant terminology both in Swedish and in English and use it correctly in basic oral and written presentation and reporting .
- be able to describe and explain the processes in the atmosphere, the lithosphere, the hydrosphere and the biosphere and their connection to current environmental problems.
- Be able to apply the basic subject related computer science and field and laboratory methods and techniques.
- Suggest and be able to utilise basic cartographic methods for fieldwork assignments
- Have ability to via library, internet and databases conduct background research to deepen knowledge in a defined field.

Assessment skills and approach

The student is expected to:

- having obtained an understanding in and consciousness about the inter-connected cyclic system of the atmosphere, the lithosphere, the hydrosphere and the biosphere and human role in these,
- have achieved a level of knowledge that facilitates an extended and advanced personalised assessment of current environmental issues.

Course content

The course consists of four partly integrated subparts

- Basic knowledge about minerals, rocks and quaternary deposits. Basic geomorphology based on endogenic, exogenic and ecological processes. The abiotic and biotic development and evolution of the landscape. Landscape evolution on different spatial and temporal scales.
- Basic meteorological, climatological, hydrological and oceanographic processes and their relationship at different levels.
- Ecosystem processes including vegetation dynamics. The relationship between climate and the soil development in different biomes.
- Introduction of remote sensing - and GIS-techniques. Presentation of bio-geo-sphere dynamic processes using systems analysis and modelling. Fieldwork. Introductory communication training, computer experience and library science.

Course design

The teaching consists of lectures, laboratory sessions, field exercises, seminars, group work and project work. Participation in laboratory sessions, field exercises, seminars, group work and project work and thereby integrated other teaching is compulsory.

Assessment

Examination takes place via written assignments and project presentations during the course and via written examination at the end of the course. Students who have not passed the ordinary examination are offered a re-examinations shortly after.

Grades

Grading scale includes the grades: Fail, Pass, Pass with distinction
The grades for written assignments and project presentations are passed and failed. To pass the entire course, approved examination and passed results of written assignments are required as well as completed project presentations and participation in all compulsory parts.

Entry requirements

General and courses corresponding to the following Swedish Upper Secondary School Programs: Mathematics 2, Science 2 (Biology 1+Chemistry 1+Physics 1a/1b1+1b2 equals Science 1+2)

Further information

The course may not be included in a higher education diploma combined with NGE600 Physical geography, introduction to the environment of the Earth, 10 credit points, NGE601 Physical geography, introduction to the environment of the Earth, 10 credit points.